

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application

Inventor(s): Taylor et al.
Appln. No.: 10/798,228
Confirm. No.: 3458
Filed: March 11, 2004
Title: ROBOT VACUUM WITH PARTICULATE
DETECTOR

PATENT APPLICATION

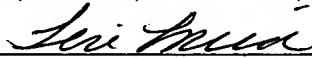
Art Unit: 1744

Examiner:

Customer No. 23910

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence is being deposited in the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 17, 2004.



(Signature)

Teri Muir

Signature Date: June 17, 2004

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.56

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

It is requested that the information identified in this statement be considered by the Examiner and made of record in the above-identified application. This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56. If this is a continuation, divisional or continuation-in-part application, it is understood that the Examiner will consider all information which was considered by the Office in a parent application. MPEP §609. Such information therefore is not listed herein unless it is desired that the information be printed on a patent issuing from the subject application.

Enclosed with this statement are the following:

- ☒ Form PTO-1449. The Examiner is requested to initial the form and return it to the undersigned in accordance with M.P.E.P. §609.
- ☒ The present application is being/was filed after June 30, 2003. In accordance with the pre-official gazette waiver of 37 CFR 1.98 (a)(2)(i) posted at: pac/dapp/opla/preognotice/idswouscopies.htm, copies of cited U.S. patents and publications are not enclosed. However, copies of cited foreign patent documents and non-patent literature are enclosed in accordance with 37 CFR 1.98(a)(2), as still required, except for those items designated by an asterisk (*), which were previously submitted by the applicant in a parent application, from which benefit under 35 U.S.C. §120 is claimed, with an *Information Disclosure Statement* submitted in the parent application which complies with the

September 8, 2000 or subsequent revision of 37 C.F.R. §1.98(a-c), as allowed under 37 C.F.R. §1.98(d)(1).

— The present application was filed prior to June 30, 2003. A copy of each cited document as required by 37 C.F.R. §1.98 is enclosed, except for those items designated by an asterisk (*), which were previously submitted by the applicant in a parent application, from which benefit under 35 U.S.C. §120 is claimed, with an *Information Disclosure Statement* submitted in the parent application which complies with the September 8, 2000 or subsequent revision of 37 C.F.R. §1.98(a-c), as allowed under 37 C.F.R. §1.98(d)(1).

— If any of the cited/submitted documents is in a foreign language, a concise explanation of relevance is provided pursuant to 37 C.F.R. §1.98(a)(3)(i). For foreign language documents cited in a search report by a foreign patent office, the requirement for a concise explanation of relevance is satisfied by the submission herewith of an English language version of the search report. MPEP §609A(3). If a written English-language translation of a non-English language document, or portion thereof, is within the possession, custody or control of, or is readily available to any individual designated in §1.56(c), a copy of the translation accompanies this statement, 37 C.F.R. §1.98(a)(3)(ii), and satisfies the requirement for a concise explanation of relevance, MPEP §609A(3).

— ***PTA Statement under 37 C.F.R. §1.704(d).*** Each item of information contained in the *Information Disclosure Statement* was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the *Information Disclosure Statement*.

This statement should be considered because:

√ 37 C.F.R. §1.97(b). This statement qualifies under 37 C.F.R. §1.97, subsection (b) because:

- (1) It is being filed within three months of the filing date of an application other than a continued prosecution application under § 1.53(d);
-- OR --
- (2) It is being filed within 3 months of entry of a national stage;
-- OR --
- (3) It is being filed before the mailing date of the first Office Action on the merits,
-- OR --
- (4) It is being filed before the mailing date of the first Office Action after the filing of a Request for Continued Examination under 37 C.F.R. §1.114.

— 37 C.F.R. §1.97(c). Although it may not qualify under subsection (b), this statement qualifies under 37 C.F.R. §1.97, subsection (c) because:

- (1) It is being filed before the mailing date of a FINAL Office Action, a Notice of Allowance, or an action that otherwise closes prosecution in the subject application, whichever occurs first.

-- AND (check at least one of the following) --

— (1) It is accompanied by a STATEMENT as set forth in 37 C.F.R. §1.97(e).

-- OR --

— (2) It is accompanied by the \$180 fee set forth in 37 C.F.R. §1.17(p).

— **37 C.F.R. §1.97(d).** Although it may not qualify under subsection (b) or (c), this statement qualifies under 37 C.F.R. §1.97, subsection (d) because:

(1) It is being filed on or before payment of the Issue Fee;

-- AND --

(2) It is accompanied by a STATEMENT as set forth in 37 C.F.R. §1.97(e);

-- AND --


(3) It is accompanied by the \$180 fee set forth in 37 C.F.R. §1.17(p).

✓ **Fee Authorization.** The Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Account No. 06-1325. A duplicate copy of this authorization is enclosed.

Respectfully submitted,

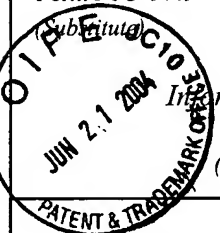
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Date: 6/17/04

By: 

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Form PTO-1449 (Substituted)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		Attorney Docket Number SHPR-01360USJ		Serial/Patent Number 10/798,228	
 <p><i>Information Disclosure Statement</i> BY APPLICANT (Use several sheets if necessary)</p>				Applicant/Patent Owner Taylor et al.			
				Filing/Issue Date March 11, 2004		Group Art Unit 1744	
U.S. PATENTS							
Examiner Initial		Patent Number	Issue Date	First Named Inventor	Class	Subclass	Filing Date
		D 471,243	03/04/03	Cioffi et al.			
		4,674,048	06/16/87	Okumura			
		4,700,427	10/20/87	Knepper			
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		4,782,550	11/08/88	Jacobs			
		4,962,453	10/09/90	Pong et al.			
		4,977,639	12/18/90	Takahashi et al.			
		5,012,886	05/07/91	Jonas et al.			
		5,023,444	06/11/91	Ohman			
		5,095,577	03/17/92	Jonas et al.			
		5,109,566	05/05/92	Kobayashi et al.			
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		5,148,573	09/22/92	Killian et al.			
		5,208,521	05/04/93	Aoyama			
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		6,323,932	11/27/01	Zhang et al.			
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		6,519,804	02/18/03	Vujik			
		6,532,404	03/11/03	Colens			
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		6,605,156	08/12/03	Clark et al.			
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		6,661,239	12/09/03	Ozick			
		6,671,592	12/30/03	Bisset et al.			

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		2001/0047895	12/06/01	DeFazio et al.
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		2002/0091466	07/11/02	Song et al.
		2002/0112899	08/22/02	Dijksman et al.
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		2003/0076484	04/24/03	Bamji et al.
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		2003/0192144	10/16/03	Song et al.
		2003/0208304	11/06/03	Peless et al.

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		2003/0229421	12/11/03	Chmura et al.	
PENDING U.S. PATENT APPLICATIONS					
Examiner Initial		Application Number	Filing Date	First Named Inventor	Petition to Expunge? Yes No

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Examiner Initial		Document Number	Publication Date	Country	Class	Subclass	<u>Trans-lation</u> Yes No	
		DE 100 00 407 A1	12/07/2001	Germany				X
		DE 100 42 753 C2	19/09/2002	Germany				X
		EP 1 133 537 A1	30/07/2003	Europe			X	
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		GB 2 352 486 A	31/01/2001	United Kingdom			X	
		GB 2 355 523 A	05/04/2001	United Kingdom			X	
		GB 2 369 511 A	09/05/2002	United Kingdom			X	
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		JP 2002 360479	17/12/2002	Japan				X
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		WO 00/73868	07/12/2000	PCT			X	
		WO 01/01208	04/01/2001	PCT			X	
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Examiner Initial		Document Number	Publication Date	Country	Class	Subclass	Trans- lation	
							Yes	No
		WO 02/067744	06/09/2002	PCT			X	
		WO 02/075469	26/09/2002	PCT			X	
		WO 03/031285	17/04/2003	PCT			X	
		WO 03/062937	31/07/2003	PCT			X	
		WO 03/104909	18/12/2003	PCT			X	
OTHER DOCUMENTS (Include author (if any), title, publisher and place of publication, date and pertinent pages)								
		"Roomba" Intelligent Floor Vac, Owners Manual; 2002 iRobot Corporation; Cover page and Contents; pp.1-18.						
		Russell et al., "A Modern, Agent-Oriented Approach to Introductory Artificial Intelligence", Sun Microsystems Laboratories; (3 pages)						
		Ulrich et al., "Autonomous Vacuum Cleaner"; Laboratory of Microcomputing (LAMI); Swiss Federal Institute of Technology; Abstract: pp. 1-16.						
		Choset et al., "Coverage Path Planning: The Boustrophedon Cellular Decomposition"; Dept. of Mechanical Engineering, Carnegie Mellon University; Nomadic Technologies, Inc.; Abstract; (7 pages)						
		JACO; Trash Retrieval Robot; University of Florida; Department of Electrical and Computer Engineering; EEL 5666; Intelligent Machine Design Laboratory; Aaron Grassian; April 29, 1997; (15 pages)						
		Doty et al., "Sweep Strategies for a Sensory-Driven, Behavior-Based Vacuum Cleaning Agent"; Machine Intelligence Laboratory; University of Florida, Gainesville, FL.; AAAI 1993 Fall Symposium Series; Instantiating Real-World Agents; Research Triangle Park, Raleigh, NC; October 22-24, 1993; pp. 1-6.						
Examiner				Date Considered				
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>								
<p>*1 = Copy not submitted because it was submitted in prior application SN / _____, filed _____, 20____, relied on under 35 USC §120.</p> <p>*2 = Copy not submitted because it was submitted in prior application SN / _____, filed _____, 20____, relied on under 35 USC §120.</p>								